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Urban Agriculture: Another Way to Feed Cities

Introduction

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INTRODUCTION

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Cities and agriculture seem two incompatible worlds. Yet we are seeing more and more urban agricultural projects taking shape. Are these attempts to feed city-dwellers, who will account for three-quarters of our planet's population by the middle of the century? Far from it. Urban and peri-urban agriculture will never produce enough and will, at best, account for a few percent of global food production. But these few percentage points could make the difference locally in the event of a farming sector crisis. Very few cities have followed Havana and Singapore in choosing a productivist model for urban agriculture.

Urban agriculture is in reality less about helping cities to achieve food self-sufficiency and more about helping to feed citizens differently. "Differently" means quality produce distributed via short circuits, bringing producers and consumers closer to each other. It is a more sustainable model with the smallest possible environmental footprint. It is also a process that helps cities to rekindle an age-old relationship with food that was stretched to a breaking point during the 20th century. In the past this relationship was direct, as evidenced by the siting of community gardens and slaughterhouses in towns and cities. This symbiotic relationship was destroyed by soil sealing, greater building density and ballooning land prices. The early 21st century is seeing a renewed interest in urban agriculture. Irrespective of the food produced, it is a concept that creates employment, strengthens social bonds, builds resilience to climate change and improves biodiversity. By allowing nature back, urban agriculture helps to regreen the city and reincorporate it into the major natural cycles.

But what can cities offer agriculture? As well as proximity to consumers, cities offer high CO_2 concentrations that accelerate plant growth because carbon is the raw material for living things. Cities also offer financial resources. But the real key lies elsewhere. What the city offers agriculture is access to its unused resources: vacant spaces, roofs in particular; waste heat, 2 to 3 degrees Celsius warmer than surrounding countryside; the organic matter embodied in its household and green waste; runoff water, and so on. Urban agriculture recovers all of these generally unused resources. This is why it is so resolutely part of the circular economy.

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What is so striking about this agriculture is the extreme diversity of the forms it takes. It can be open air or indoor, in carefully sealed, protected and controlled environments. It can be horizontal, like the community gardens of São Paulo, or vertical like in New York. At ground level or in cellars or basements. Manual, like in Addis Ababa or robotized and automated like the farming factories of Japan. It can be on standalone plots or incorporated into existing buildings. It may be designed to reduce food bills for poor families, like in Quito or, conversely, to supply premium produce sold at high prices, like in Brussels. Its objective may be leisure, education or production. It can use simple ancestral models or the latest technologies to maximize yields and minimize inputs. Its inspiration may come from conventional agriculture, hydroponics, aeroponics, permaculture, and more.

Booming it may be, but there are a number of challenges that urban agriculture needs to address. These include becoming more professional, and recruiting and training competent workers. It has to find profitable business models – because growing in the city is expensive – and ensure that its produce is safe and does not reintroduce multiple urban pollutants into the food chain. Lastly, and most importantly, urban agriculture has to find ways to compete for land with other more profitable projects. This is why it needs active support from municipalities, which must embed urban agriculture into their planning policies.

This issue of the *Veolia Institute Review – FACTS Report* is a mixture of cross-disciplinary studies and reports from the field, from emerging as well as developed economies. It shines a light on the renaissance of urban and peri-urban agriculture, its changing forms and technologies, its potential and limitations.

Previously exiled beyond the city boundary, new forms of agriculture are now returning to city centers. Cities around the world are rolling out initiatives designed to relocalize part of their food systems. This shows that urban agriculture is far more than just a niche phenomenon. And what is emerging in parallel to this movement is a new balance between the city and its food. It is creating a new urban space that combines city life with agricultural production – a new "rurbanity" created not by an influx of city-dwellers into the countryside, but by rurality taking root in the city. One thing is certain: the city of tomorrow will once again be a food-producing city.